

IN THE CLAIMS:

Please amend claims 1-15, 32, 37, and 40-42, add new claims 43-59, and cancel claims 16-31 and 33-36, without prejudice or disclaimer, as follows.

1. (Currently Amended) A ~~packet data communication system~~, comprising:
 - at least one access network configured to provide a wireless interface between a mobile device and the at least one access network for communication of packet data;
 - a core network comprising at least one core network node configured to support communication of packet data on the wireless interface and configured to release a data communication link associated with the mobile device in the absence of a response to one or more messages directed to the mobile device; and
 - a controller provided in association with the at least one access network and configured to monitor at least one condition associated with the wireless interface ~~other than the absence of said response to said one or more messages directed to the mobile device, and, if when~~ the monitoring indicates that the at least one condition is met, to generate and send to the core network node one or more messages in response to one or more of said one or more messages from the core network node.
2. (Currently Amended) The ~~communication system~~ of claim 1, wherein the controller is configured to monitor a condition associated with signal strength on the wireless interface.

3. (Currently Amended) The ~~communication~~-system of claim 2, wherein the controller is configured to monitor the condition, wherein the condition is associated with the signal strength, and wherein the signal strength comprises the signal strength of uplink link layer frames.

4. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is configured to monitor a condition that comprises expiration of a timer.

5. (Currently Amended) The ~~communication~~-system of claim 4, wherein the controller is configured to monitor the condition that comprises the expiration of the timer and wherein the timer is configured to expire before the expiration of the message.

6. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is configured to monitor a condition associated with paging of the mobile device.

7. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is configured to monitor re-registration messages from the mobile device.

8. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is configured to monitor pilot signals from the mobile device.

9. (Currently Amended) The ~~communication~~-system of claim 1, wherein the core network node comprises an access gateway.

10. (Currently Amended) The ~~communication~~-system of claim 9, wherein the access gateway comprises a packet data support node.

11. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is provided in a base station controller.

12. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is provided in a packet control function associated with the access network.

13. (Currently Amended) The ~~communication~~-system of claim 1, wherein the controller is configured to respond to messages that are sent to the mobile device on behalf of the mobile device.

14. (Currently Amended) The communication system of claim 1, wherein the controller is configured to send a notification regarding the status of the wireless interface in response to a message from the core network node.

15. (Currently Amended) A method, the method comprising:

establishing a data communication link via an access network of a data communication system to a mobile device on a wireless interface between the access network and the mobile device;

sending one or more messages from ~~the~~a core network node of the data communication system to the mobile device via the access network, wherein the core network is configured to release said data communication link in the absence of a response to said one or more messages;

detecting at a controller provided in association with the access network that at least one trigger condition associated with the wireless interface ~~other than the absence of~~ ~~said response to said one or more messages directed to the mobile device,~~ is met; and

subsequent to such detection, generating at the controller and sending to the core ~~of the~~ ~~network~~ node one or more messages in response to said one or more messages from the core network node.

16-31. Cancelled

32. (Previously Presented) A method, comprising:

establishing a data communication link via an access network of a data communication system to a mobile device on a wireless interface between the access network and the mobile device;

sending one or more messages from a core network node of the data communication system to the mobile device via the access network, wherein the core network node is configured to release said data communication link in the absence of a response to said one or more messages;

detecting at a controller provided in association with the access network that the mobile device is out of reach;

notifying said core network node that the mobile device is out of reach;

and

in response to receiving the notification, retaining said data communication link but pausing from sending further data packets from the core network node to the mobile device and processing the data packets in accordance with a predefined policy.

33-36. Cancelled

37. (Currently Amended) A packet data communication system, comprising:

establishing means for establishing a data communication link via an access network of the data communication system to a mobile device on a wireless interface between the access network and the mobile device;

first sending means for sending one or more messages from a core network node of the data communication system to the mobile device via the access network, wherein the core network node is configured to release said data communication link in the absence of a reply to said one or more messages;

detection means for detection at a controller provided in association with the access network that at least one trigger condition associated with the wireless interface ~~other than the absence of a response to said one or more messages directed to the mobile device~~, is met; and

second sending means for sending a further message from the controller to the core network node subsequent to such detection, wherein the core network node postpones the release of said release link in response to such a further message.

38-39. Cancelled

40. (Currently Amended) A ~~packet data communication system~~, comprising:

an establishing unit configured to establish a data communication link via an access network of the data communication system to a mobile device on a wireless interface between the access network and the mobile device;

a first sending unit configured to send one or more messages from a core network node of the data communication system to the mobile device via the access network, wherein the core network node is configured to release said data communication link in the absence of a reply to said one or more messages;

a detector configured to detect at a controller provided in association with the access network that at least one trigger condition associated with the wireless interface ~~other than the absence of said response to said one or more messages directed to the mobile device~~, is met; and

a second sending unit configured to send a further message from the controller to the core network node subsequent to such detection, wherein the core network node postpones the release of said release link in response to such a further message.

41. (Currently Amended) An apparatus, which is associated with at least one access network via which a data communication link is established between a mobile device and a core network configured to release said data communication link in the absence of a response to one or more messages directed to the mobile device; wherein the apparatus is configured to comprising:

a monitor configured to monitor at least one condition associated with the wireless interface other than the absence to said one or more messages directed to the mobile device, wherein the apparatus is associated with at least one access network via which a data communication link is established between the mobile device and a core network node configured to release said data communication link in the absence of a response to said one or more messages directed to the mobile device; and,

if the monitoring indicates that the at least one condition is met, either a generator/transmitter configured to, in response to an indication that the at least one condition is not met, generate on behalf of the mobile device and send transmit to the core network node one or more messages in response to said one or more messages from the core network node, or otherwise configured to, in response to an indication that the at least one condition is not met, generate and transmit send a message to the core network node a message in response to which the core network node postpones release of said data communication link.

42. (Currently Amended) A method for use in a system in which a data communication link is established between a mobile device and a core network configured to release said data communication link in the absence of a response to one or more messages directed to the mobile device; wherein the method, comprisescomprising:

monitoring at least one condition associated with ~~the—a~~ wireless interface constituting part of a communication link between a mobile device and a core network node configured to release said data communication link in the absence of a response to one or more messages directed to the mobile device, said at least one condition comprising a condition ~~other than the absence of a response to said one or more messages directed to the mobile device~~, and;

~~if the monitoring~~ in response to an ~~indicates~~ indication that the at least one condition is met, either

generating on behalf of the mobile device and sending to the core network node one or more messages in response to said one or more messages from the core network node or otherwise

sending a message to the core network node in response to which the core network network node postpones release of said data communication link.

43. (New) The apparatus of claim 41, wherein the monitor is configured to monitor a condition associated with signal strength on the wireless interface.

44. (New) The apparatus of claim 43, wherein the signal strength comprises the signal strength of uplink link layer frames.

45. (New) The apparatus of claim 41, wherein the monitor is configured to monitor a condition that comprises expiration of a timer.

46. (New) The apparatus of claim 45, wherein the timer is configured to expire before the expiration of the message.

47. (New) The apparatus of claim 41, wherein the monitor is configured to monitor a condition associated with paging of the mobile device.

48. (New) The apparatus of claim 41, wherein the monitor is configured to monitor re-registration messages from the mobile device.

49. (New) The apparatus of claim 41, wherein the monitor is configured to monitor pilot signals from the mobile device.

50. (New) A base station controller comprising an apparatus according to claim 41.

51. (New) A packet control function associated with the access network comprising an apparatus according to claim 41.

52. (New) A communication system comprising a mobile device, a core network node and an apparatus according to claim 41.

53. (New) The method of claim 42, comprising monitoring a condition associated with signal strength on the wireless interface.

54. (New) The method of claim 53, wherein the signal strength comprises the signal strength of uplink link layer frames.

55. (New) The method of claim 42, comprising monitoring a condition that comprises expiration of a timer.

56. (New) The method of claim 55, wherein the timer is configured to expire before the expiration of the message.

57. (New) The method of claim 42, comprising monitoring a condition associated with paging of the mobile device.

58. (New) The method of claim 42, comprising monitoring re-registration messages from the mobile device.

59. (New) The method of claim 42, comprising monitoring pilot signals from the mobile device.